

REMARKS

The claims have been amended to more clearly define the invention as disclosed in the written description. In particular, claim 11 has been cancelled. In addition, claims 2, 8 and 9 have been amended for clarity.

The Examiner has rejected claims 2, 3/2, 4 and 8-10 under 35 U.S.C. 103(a) as being unpatentable over the Admitted Prior Art in view of U.S. Patent 6,507,299 to Nuijten. Applicants acknowledge that the Examiner has allowed claims 1, 3/1 and 5-7.

As noted by the Examiner, APA discloses runlength limited (RLL) code sequences, having merging bits for DC control.

The Nuijten patent discloses embedding supplemental data in an information signal, in which selected bits of an encoded signal are replaced by a watermark bit or a sync pattern bit. In particular, a "-1" sample of the encoded signal is replaced by a "+1" sample so as to represent a watermark bit $w=1$.

The subject invention also relates to embedding (and detecting) supplemental data in an information signal, which is, in the present case, a runlength limited code sequence. Instead of directly changing the polarity of a bit in the encoded signal to represent the supplemental data, the subject invention detects the polarity of the runlength at a first predetermined position, independence on the detected polarity and the current bit value of the secondary information signal, and modifies the parameter

reflecting the degree of freedom in the runlength-limited coding such that an ensuing runlength at a second position has the polarity of the secondary information signal. It is important to note that the portion of the RLL code sequence being directly changed, i.e., the parameter reflecting the degree of freedom in the runlength-limited coding, does not carry the secondary information. Rather, the secondary information is carried by the runlength at the second position in which the polarity thereof is determined by the parameter reflecting the degree of freedom in the runlength-limited coding.

Applicants submit that the combination of APA and Nuijten would disclose reversing the polarity of a specific sample of the RLL code sequence to represent the supplemental data.

Applicants further submit that the combination of APA and Nuijten neither shows nor suggests that the polarity of a runlength at a first position along with a bit value of the secondary information signal should be used to modify the parameter reflecting the degree of freedom in the runlength-limited coding such that the polarity of a runlength at a second position following the parameter is the bit value of the secondary information signal.


Applicants note that the Examiner indicated "Applicant's arguments, filed on 05/09/2005, address limitations found in claims 1, and 7, but are not persuasive regarding broader independent

claims 2, 8 and 9." Applicants submit that claims 2, 8 and 9 have now been amended to further define the runlength-limited code sequence as claimed in claim 1.

In view of the above, Applicants believe that the subject invention, as claimed, is not rendered obvious by the prior art, either individually or collectively, and as such, is patentable thereover.

Applicants believe that this application, containing claims 1-10, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

by 
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